

Remarks

Claims 17-33 are now pending in this application. Claims 1-16 were previously canceled without prejudice. Claims 17, 20 and 24 are hereby amended. No new matter is being added.

Claim Rejections

Claims 17, 19-25, and 31-32 stand rejected under 35 USC 103 as allegedly being unpatentable over Pahl et al (hereinafter Pahl) in view of Gupta et al (hereinafter Gupta) further in view of Tsuzuki et al (hereinafter Tsuzuki). Claims 18, 26-28 and 33 stand rejected under 35 USC 103 as allegedly being unpatentable over Pahl in view of Gupta further in view of Tsuzuki further in view of Onishi. Claim 29 stands rejected under 35 USC 103 as allegedly being unpatentable over Pahl in view of Gupta further in view of Tsuzuki further in view of Bashir. Claim 30 stands rejected under 35 USC 103 as allegedly being unpatentable over Pahl in view of Gupta further in view of Tsuzuki further in view of Orcutt. Hence, each of the pending claims stands rejected based at least upon Pahl in view of Gupta further in view of Tsuzuki.

Independent claims 17 and 20 are hereby amended. The aforementioned rejections are traversed with respect to the claims as now amended.

Claim 17 now recites as follows.

17. A surface acoustic wave (SAW) device sealed at the wafer level, the device comprising:
 an active area to be protected;
 electrical contact areas of transducer structures; and
 a lithographically-formed structure hermetically sealing at least the active area and leaving at least a portion of the electrical contact areas exposed,
 wherein the lithographically-formed structure comprises a seal coating which comprises a self-supporting structure adjoining the electrical contact areas of the transducer structures.

(Emphasis added.)

As seen above, claim 17 now recites a SAW device including "a lithographically-formed structure hermetically sealing at least the active area ... wherein the lithographically-formed structure comprises a **seal coating which comprises a self-supporting structure adjoining the electrical contact areas of the transducer structures.**" (Emphasis added.) This claim language is supported in the original specification and drawings. For example, FIG. 1H, which is reproduced below, discloses the self-supporting structure of the seal coating 24 which adjoins the electrical contact areas of the transducer structures (shown in gray).

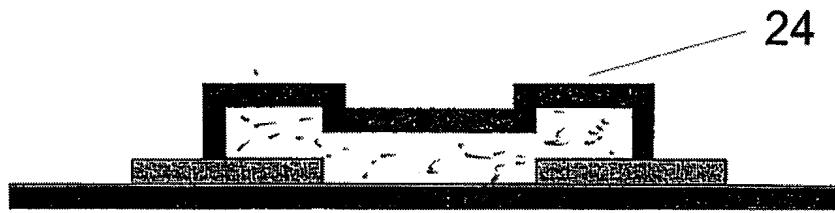


FIG. 1H

In contrast, neither Pahl, nor Gupta, nor Tsuzuki, nor the combination thereof, disclose or suggest the limitations of claim 17.

In Pahl et al, the covering layer 9 is supported by a **support frame comprising resist structure 7 with high-resistance layer 8.** This is illustrated in FIGS. 5 and 6 of Pahl et al, which are reproduced below.

FIG 5

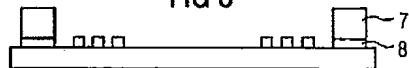
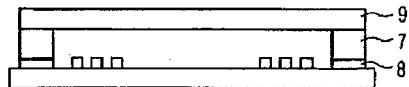


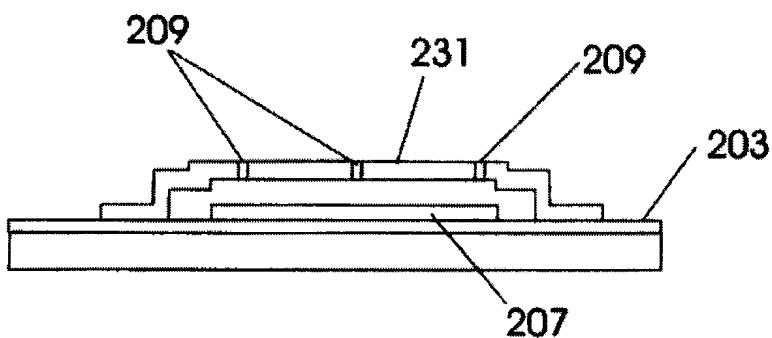
FIG 6



Hence, Pahl et al does not teach or disclose the claimed SAW device including “**a lithographically-formed structure hermetically sealing at least the active area ... wherein the lithographically-formed structure comprises a seal coating which comprises a self-supporting structure adjoining the electrical contact areas of the transducer structures.**” (Emphasis added.) Instead, Pahl et al teaches forming the covering layer 9 on top of a support frame (7 and 8).

Regarding FIG. 11a-11e of Gupta et al, this citation discloses a thin polysilicon **diaphragm 231** with holes 209 therein. Furthermore, the polysilicon diaphragm 231 is formed on and **adjoins to an insulating layer 203**. The diaphragm 231 and insulating layer 203 are shown in FIG. 11e, which is reproduced below.

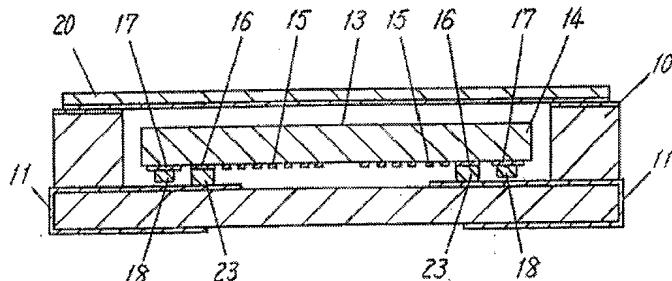
FIG. 11e



Hence, Gupta et al does not teach or disclose the claimed SAW device including “a lithographically-formed structure hermetically sealing at least the active area ... wherein the lithographically-formed structure comprises a **seal coating which comprises a self-supporting structure adjoining the electrical contact areas of the transducer structures.**” (Emphasis added.) Instead, Gupta et al teaches forming a thin diaphragm which adjoins an insulating layer.

Regarding Tsuzuki et al, this reference is cited for disclosing a hermetic seal in its abstract. As seen in FIG. 10, which is reproduced below, the hermetic seal of Tsuzuki et al is formed with **a package lid 20 which is entirely separate from the connection electrodes 16 of the SAW element 13.**

FIG.
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Hence, Tsuzuki et al does not teach or disclose the claimed SAW device including “a lithographically-formed structure hermetically sealing at least the active area ... wherein the lithographically-formed structure comprises a **seal coating which comprises a self-supporting structure adjoining the electrical contact areas of the transducer structures.**” (Emphasis added.) Instead, Tsuzuki et al teaches a package lid which is entirely separate from the connection electrodes of the SAW element.

For at least the above-discussed reasons, applicants respectfully submit that claim 17 is patentably distinguished over the cited art.

Claims 18-19 and 25-33 depend from claim 17. As such, applicants respectfully submit that claims 18-19 and 25-33 are patentably distinguished over the cited art for at least the same reasons as discussed above in relation to claim 17.

Similar to claim 17, claim 20 is hereby amended and now recites that “**said wafer-level means for hermetically sealing comprises a seal coating which comprises a self-supporting structure abutting electrical contact areas of the transducer structures.**” Therefore, applicants respectfully submit that claim 20 is patentably distinguished over the cited art for at least the same reasons as discussed above in relation to claim 17.

Claims 21-24 depend from claim 20. Hence, applicants respectfully submit that claims 21-24 are patentably distinguished over the cited art for at least the same reasons as discussed above in relation to claim 20.

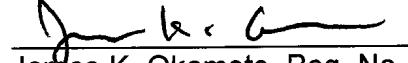
Conclusion

Favorable action is respectfully requested. The examiner is also invited to call the below-referenced attorney to discuss this case.

Respectfully Submitted,

Dated: May 19, 2008

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